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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,283	11/13/2001	Carl-Axel Bauer	06275-150003	5064

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EXAMINER	
KIM, JENNIFER M	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/010,283	BAUER ET AL.	
	Examiner	Art Unit	
	Jennifer Kim	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,11-17 and 21-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,11-17 and 21-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The response filed May 15, 2006 have been received and entered into the application.

Action Summary

1. The rejection of claims 9 and 11-25 under 35 U.S.C. 103(a) as being unpatentable over Carling et al. of record in view of (Cazzola et al (U) of record and Renkema et al. (Chest, 1996) and further in view of Giardina et al. (U.S.Patent No. 6,277,862B1) of record is being maintained for the reasons stated in the previous Office Action and the rejection is modified in this Office Action to reflect the amended claims including cancellation of claims 18-20 and newly added claims 26-58.

2. Applicant's amendment necessitated additional rejection in this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9,11-17, 21-40, 54 and 57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "intensity" in claims 9 and 54; and the amount of formoterol as being delivered as "42nmol" in claim 57 lack literal support in the specification as originally filed. The specification page 2, lines 8-12, disclose the "reducing frequency" of COPD exacerbations as "reducing the number of exacerbations of COPD" but lacks support for actual reducing "intensity" of COPD; and nowhere in the specification discloses the specific nmol amount of formoterol as 42 nmol. This is New Matter rejection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 11-17, 21-40 and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "intensity" is vague and indefinite because it is not clear what are the features that involving displaying measuring the "intensity" of COPD. The specification discloses improvement of the lung function in page 2, lines 10-11. Is the "intensity" referring to the lung function or the actual degree of symptoms experienced by the patient. It is not clear what is the determining factor of the "intensity" intended.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9, 11-17 and 21-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carling et al. of record in view of (Cazzola et al (U) of record and Renkema et al. (Chest, 1996) and further in view of Giardina et al. (U.S.Patent No. 6,277,862B1) of record.

Carling et al. on the abstract, page 4, lines 23-29, page 7-9(examples), and page 10 (claims), teach a medicament containing effective amounts of formoterol and budesonide in combination for simultaneous, sequential or separate administration by inhalation in treatment of respiratory disorder with effective amounts within Applicants' ranges set forth in claims. Carling et al. teach that the combination comprising formoterol and budesonide has not only a greater efficiency and duration of bronchodilator action but the combination also has a rapid onset of action and this new feature is of utmost importance in order to establish a higher compliance for patients and it provides a rescue medicine thereby avoiding the necessity for the patient of

carrying two different inhalers. (page 4, lines 4-10). Carling et al. teach that the combination of formoterol and budesonide in a single formulation simplifies life for patients considerably and makes life more comfortable and secure in treating respiratory disorder. (page 4, lines 10-12, lines 23-29).

Carling et al. do not expressly teach the treatment of COPD.

Cazzola et al. on the abstract teaches that formoterol is effective in patients with COPD.

Renkema et al. teaches the effects of long-term treatment with corticosteroids (i.e. budesonide) in COPD. (abstract). Renkema et al. teach that the treatment with corticosteroid (i.e. budesonide) significantly reduced pulmonary symptoms in patients with COPD. (abstract).

Giardina et al. report that COPD and asthma are respiratory diseases. (column 1, lines 37-40, column 5, lines 55-57, claim 47).

It would have been obvious to skilled artisan to employ the Carling's medicament in reducing the frequency and/or intensity of COPD since COPD is well known respiratory disease as disclosed by Giardina et al. and Giardina et al. teach that the combination is useful for the treatment of respiratory disorders. Further, each of active agents (budesonide and formoterol) utilized in Carling's medicament are individually known to treat COPD conditions as well as taught by Cazzola et al. Renkema et al.. One of ordinary skilled in the art would have been motivated to employ Carling's medicament in reducing the severity or intensity or frequency of having COPD with reasonable expectation of success since each of the active agents utilized in Carling's

medicament are well known individually for effectively treating respiratory disease, COPD. Absent any evidence to contrary, there would have been a reasonable expectation of successfully treating COPD by employing Carling's formulation to achieve greater efficiency and duration of action with a rapid onset of action and to simplify life for COPD patients by making life more comfortable and secure in reducing severity of respiratory disease (e.g. COPD) and related symptoms.

For these reasons the claimed subject matter is deemed to fail to patentably distinguish over the state of the art as represented by the cited references. The claims are therefore properly rejected under 35 U.S.C. 103.

None of the claims are allowed.

Response to Arguments

Applicants' arguments filed November 4, 2005 have been fully considered but they are not persuasive.

Applicants' arguments are as follows:

1) The references do not provide either the motivation or the expectation of success necessary to make out a prima facie case of obviousness (because nothing in the art mention treatment of COPD in particular and that the Merck Manual reports that there is clear difference between asthma and COPD, diagnosable asthma is not included with COPD" (17th Edition, 1999, at page 569)).

2) The prior art as a whole actually taught away from the claimed methods. (Renkema demonstrated "limited" beneficial effects in COPD and neither airflow obstruction (as measured by FEV1) nor the frequency or duration of exacerbations was affected by treatment with budesonide (page 1160, column 1)).

3) The surprising results observed by Applicants are cogent, objective evidence that the claimed methods cannot be deemed obvious.

4) Even years after the present application's filing date, experts in the field of respiratory therapy continued to express doubt that budesonide (whether alone or in claimed combination therapy) would be useful for treating COPD.

With regard to above argument 1), this is not persuasive because Carling et al. clearly teach the combination is useful for the treatment of asthma and other respiratory disorder and Giardina et al. disclose that COPD and asthma are referred to as reparatory disease. Further, Applicants attention is drawn to the Merck Manual, 16th Edition, page 659, wherein it teaches interrelationship of asthma and COPD, where there is overlapping disease states of clinical findings in both asthma and COPD. Therefore, there is a reasonable expectation of successfully treating interrelated disease of COPD with the combination taught by Carling et al. effective for the treatment of respiratory disorder including asthma having overlapping clinical findings and symptoms well-known by the Merck Index. It is noted that each of the Active agents utilized in Carling et al.'s combination is also known to treat COPD by cited references (Renkema et al, Cazzola et al., citations included in last office action).

With regard to above argument 2), it is not persuasive because Renkema teaching of "limited" use of budesonide for the treatment of COPD is sufficient teaching that budesonide is useful for the treatment of COPD. Renkema teaches that corticosteroid **significantly** reduced pulmonary symptoms in patients with COPD would motivate one of ordinary skill in the art to employ Carling's composition comprising formoterol well known for treatment of COPD together with budesonide having significant effect on reducing pulmonary symptoms in patients with COPD taught by Renkema, for the reducing frequency and intensity of patients suffering from COPD symptoms. It is noted that Renkema's no finding of treatment effect on frequency or duration of exacerbations are due to high number of withdrawals only. Renkema still clearly teaches usefulness of budesonide having significant reduction of symptoms regarding pulmonary function in patients suffering COPD.

With regard to argument 3), it is not persuasive because Applicants' data has been carefully reviewed and considered. However, the prior art Carlings et al teach that the combination of formoterol and budesonide gives greater efficiency in treatment of respiratory disorders. (page 4, lines 3-10). Therefore, this teaching encompasses Applicant's data of having synergistic effect of either agent employed alone. Carlings et al. teach same combination having same ratio for the greater efficiency of treating respiratory disorder which includes COPD. Therefore, the greater efficiency result of treating COPD is expected and taught by Carlings.

With regard to argument 4), it is not persuasive because it is clear that the combination of well-known by Carling for the greater efficiency in the treatment of

respiratory disorders. The each of the active agents are known by the cited references having useful utility in the treatment of COPD. Therefore, in this case it is prima facie obvious for the treatment of COPD in a patient with the greater efficacy amounts of the agents taught by Carling et al. Thus, the claims fail to patentably distinguish over the state of the art as represented by the cited references.

None of the claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Kim whose telephone number is 571-272-0628. The examiner can normally be reached on Monday through Friday 6:00 am to 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sreenivasan Padmanabhan
Supervisory Examiner
Art Unit 1617

Jmk
June 7, 2006